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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,391	01/02/2004	R. Gary West	P3992US05TGP	9146

23378 7590 06/22/2005

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EXAMINER

CROW, STEPHEN R

ART UNIT	PAPER NUMBER
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3764

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/749,391	Applicant(s) WEST, R. GARY	
	Examiner Steve R. Crow	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 31-38 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Columbo et al.

Note Columbo et al claims which include the method of using the orthotic gait device:

1. Apparatus for treadmill training of walking-disabled patients, comprising a treadmill, a relief mechanism for the patient, and a driven orthotic device, wherein a parallelogram fixed in a height-adjustable manner on the treadmill is provided for stabilizing the orthotic and preventing the patient from tipping forward, backward and sideward, the parallelogram being attached to the orthotic device; the orthotic device comprises a hip orthotic device and two leg parts, whereby two hip drives are provided for moving the hip orthotic device, and two knee drives are provided for moving the leg parts; the hip orthotic device and leg parts are adjustable, the leg parts are provided with cuffs which are adjustable in size and position; and a control unit is provided for controlling the movements of the orthotic device and controlling the speed of the treadmill.

2. Apparatus as claimed in claim 1, wherein the parallelogram comprises a

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base frame, an orthotic device part, and two carriers that are interconnected via bearings; on the base frame, on the one lower side, a first bearing element is attached, with which first bearing element the base frame or, respectively, the parallelogram is positioned in a rotatable manner and is fixed on a first rail of a railing of the treadmill in a height-adjustable manner; on the base frame on the other lower side a second bearing element that can be flipped open and closed is attached, with which second bearing element the base frame or, respectively, the parallelogram can be locked to a second rail of the railing of the treadmill after the completed rotating movement around the first bearing element; and an orthotic device holder that is provided with means for attaching the orthotic device is attached to the orthotic device part.

3. Apparatus as claimed in claim 1, wherein a relief mechanism is attached to the parallelogram for compensating the weight of the orthotic device, whereby a gas pressure spring, a counter weight, or a mechanical spring is provided for this purpose.

4. Apparatus as claimed in claim 1, wherein the hip orthotic device is adjustable in its width.

5. Apparatus as claimed in claim 1, wherein the leg parts comprise leg braces that can be moved inside each other so that the leg parts are adjustable in length.

6. Apparatus as claimed in claim 1, wherein the leg parts are provided with cuffs that can be adjusted continuously 'anterior-posterior' and

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`medial-lateral`.

7. Apparatus as claimed in claim 1, wherein the cuffs comprise a semi-round hoop and a tape; and a the tape is attached to the hoop in such a way that it can be freely wound around a rotary axis in a center of the patient's leg.

8. Apparatus as claimed in claim 7, wherein different settings of the orthotic device, including hip width, leg lengths, and cuff positions, are marked with marks.

9. Apparatus as claimed in claim 1, wherein a control unit is provided for controlling the drives of the orthotic device, the input values of said control unit being user data, the output values of the control unit being control signals for the orthotic device and the treadmill, and the control value of the control unit being measuring values.

10. Method for operating an apparatus as claimed in claim 1, wherein the orthotic device is turned away from the treadmill in order to permit the patient to gain access to the treadmill; the orthotic device is positioned above the treadmill and is fixed to the patient, whereby the orthotic device is relieved by a relief mechanism; and the orthotic device is driven and controlled, and the treadmill is driven and controlled.

11. Method as claimed in claim 10, wherein the parallelogram is positioned with the orthotic device at the railing of the treadmill in such a way that it can be opened towards the back, whereupon the patient is driven in a wheel chair onto the treadmill; the patient is secured in a treadmill belt or hung above

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the treadmill; and then the orthotic device is rotated from the back at the parallelogram onto the treadmill and is tightened on the suspended patient.

12. Method as claimed in claim 10, wherein the drives of the orthotic device are controlled by the control unit in such a way that the legs of the patient are moved in a natural, physiological walking pattern on the treadmill, whereby desired curves necessary for creating physiological sequences of movement are adapted by the control unit based on entered patient-specific settings and respective measuring values.

13. Method as claimed in claim 10, wherein the movements of the orthotic device are synchronized with the treadmill speed.

14. Method as claimed in claim 10, wherein the control unit synchronizes the movement of the legs with or adapts it to the speed of the treadmill in that a trigger unit signals the beginning of a standing phase and a course of a sequence of movements over time with a trigger signal, and desired curves are output to the drives of the orthotic device, adapted appropriately as control signals.

15. Method as claimed in claim 10, wherein settings of the adjustable orthotic device are read at markings, stored, and reconstructed.

16. Apparatus for treadmill training of walking-disabled patients, comprising a treadmill including a railing, a relief mechanism for the patient, and a driven orthotic device, wherein means for stabilizing the orthotic device are provided that prevent the patient from tipping forward, backward and

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sideward; the orthotic device comprises a hip orthotic device and two leg parts, two hip drives are provided for moving the hip orthotic device, and two knee drives are provided for moving the leg parts; a ball screw spindle drive is provided for each knee drive and hip drive, the orthotic device and leg parts are adjustable, the leg parts are provided with cuffs which are adjustable in size and position; and a control unit is provided for controlling the movements of the orthotic device and controlling the speed of the treadmill.

As to claims 32 and 36, varying the height of the leg actuator portions would if not inherent, be obvious within the functional parameters of the control means.

Likewise, as to claims 34 and 38, sensing over-travel would, if not inherent in the Columbo control means, be obvious to provide for user safety purposes.

### ***Claim Objections***

3. Claims 31-38 are objected to because of the following informalities: Claim 31 line 3 recites "proving". Likewise claim 35 line 4 recites "proving". Appropriate correction is required.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve R. Crow whose telephone number is 571-272-4973. The examiner can normally be reached on Reg:8:30-6;Off First Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SC

  
STEPHEN R. CROW  
PRIMARY EXAMINER  
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